UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/670,760	09/27/2000	Luis Felipe Cabrera	MSFT-0176/150795.1	6145

7590 10/21/2004	**EXAMINER**
Thomas E Watson	THAI, HANH B

ART UNIT	PAPER NUMBER
2161	

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Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

	Application No.	Applicant(s)
Office Action Summary	09/670,760	CABRERA, LUIS FELIPE
	Examiner	Art Unit	
	Hanh B Thai	2161	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *the RCE filed August 3, 2004.*

2a)☐ This action is **FINAL.**   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle,* 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☐ Claim(s) *1-34* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-34* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All   b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____.

This is in response to the Request Continued Examination filed August 3, 2004.

DETAILED ACTION

Response to Arguments

Applicant's arguments with respect to claims 1-34 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which the subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

1.   Claims 1-13, 15-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Pongracz et al. (U. S. Patent no. 6,073,128) in view of Zaremba (U. S. Patent no. 6,647,399) and

further view of Stevens (U. S. Patent no. 6,145,088).

Regarding claims 1 and 15, Pongracz discloses a method for generating backup files in a

computer system, comprising:

-      generating a full backup file corresponding to a first time for a file in the

computer system (see col. 1, lines 45-49; col.5, lines 3-21; Fig.3 and

corresponding text, Pongracz);

-      generating at least one incremental file after the first time (see col.6, lines 18-21

and col. 3, lines 64-67, Pongracz);

-      identifying a target object for the generation of cumulative backup files (see col.

5, lines 60-66 and col. 3, lines 53-64); and

-        generating at least one cumulative backup file corresponding to a second time,

after the first time, for the target object (see column 1, lines 53-61, Pongracz).

Pongracz, however, does not disclose the backup for a set of objects. Zaremba, on the

hand, discloses a method for data backup and recovery including the backup for a set of objects

and restore a file volume or version (see col. 4, lines 13-67, Zaremba). It would have been

obvious to one of ordinary skill in the art at the time of the invention to modify Pongracz to

include the claimed feature because it provides a backup system's efficiency, for example,

deletion of inactive data set (col. 4, lines 62-67, Zaremba).

Pongracz and Zaremba combination does not disclose that the backup file is performed

off-line. Stevens discloses an apparatus for remote recovery including the backup file that can be

performed off-line (see col. 1, lines 49-56, Stevens). It would have been obvious to one of

ordinary skill in the art at the time of the invention to modify Pongracz. The motivation of doing

so would have been to provide relief to data loss (column 1, lines 49-56, Stevens).

Regarding claim 2, Pongracz/Zaremba/Stevens combination further discloses that the

generating of the at least one cumulative backup file includes analyzing at least one incremental

file generated between the first and second time (see column 2, lines 10-21, Pongracz).

Regarding claim 3 Pongracz/Zaremba/Stevens combination further discloses that the

analyzing of at least one incremental file is performed in reverse chronological order, starting

from the second time (see column 3, lines 45-49, Pongracz).

Regarding claim 4, Pongracz/Zaremba/Stevens combination further discloses restoring

the target object to the second time by processing the full backup file and the at least one

cumulative backup file (see column 3, lines 64-67, Pongracz).

Regarding claim 5, Pongracz/ Zaremba/Stevens combination further discloses that restoring the target object to a third time later than the second time by processing a full backup file, the at least one cumulative backup file and any incremental backup files generated between the second time and the third time (see column 1, lines 46-61, Pongracz).

Regarding claims 6-7, Pongracz/ Zaremba/Stevens combination further discloses that the identifying includes identifying a related subset of files as the target object for a cumulative backup file (see column 3, lines 49-58, Pongracz).

Regarding claim 8, Pongracz/ Zaremba/Stevens combination further discloses the identifying includes identifying a directory as the target object for a cumulative backup file (see column 3, lines 53-58, Pongracz).

Regarding claim 9, Pongracz/ Zaremba/Stevens combination further discloses that a user identifies the target object (see column 3, lines 18-19 and column 5, lines 3-21, Pongracz).

Regarding claim 10, Pongracz/ Zaremba/Stevens combination further discloses the monitoring and analyzing restore operations in the computer system (see column 3, lines 45-53, Pongracz).

Regarding claim 11, Pongracz/ Zaremba/Stevens combination further discloses the identifying of the target object is designed to meet a condition of bounded restore time for the target object (see column 7, line 60 to column 8, line 8, Pongracz).

Regarding claim 12, Pongracz/ Zaremba/Stevens combination further discloses controlling the frequency of generating at least one of a full, incremental and cumulative backup (see column 1, line 65 to column 2, line 9, Pongracz).

Regarding claim 13, Pongracz/ Zaremba/Stevens combination further discloses a computer-readable medium having computer-executable instructions (Fig. 1 of Pongracz).

Regarding claim 16, Pongracz/ Zaremba/Stevens combination further discloses that the analyzing of the at least one incremental file is performed in reverse chronological order (see column 3, lines 45-49, Pongracz).

Regarding claim 17, Pongracz/ Zaremba/Stevens combination further discloses that the generating of said at least one cumulative backup file is performed off-line (see Fig. 2 and col. 1, lines 49-56, Stevens).

Regarding claim 18, Pongracz/ Zaremba/Stevens combination further discloses the monitoring and analyzing restore operations (see column 3, lines 45-53, Pongracz).

Regarding claim 19, Pongracz/ Zaremba/Stevens combination further discloses that the identifying of the target object is designed to meet a condition of bounded restore time (see column 7, line 60 to column 8, line 8, Pongracz).

Regarding claims 20-21, Pongracz/ Zaremba/Stevens combination further the frequency of generating at least one of a full, incremental and cumulative backup (see column 1, line 65 to column 2, line 9, Pongracz).

2.   Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Pongracz et al. (U. S. Patent no. 6,073,128) in view of Zaremba (U. S. Patent no. 6,647,399), further in view of Stevens (U. S. Patent no. 6,145,088) and further in view of Fletcher et al. (U. S. Patent no. 6,038,379).

Regarding claim 14, the limitations of this claim have been noted in the rejection of claim

1. In addition, Pongracz/Zaremba/Stevens combination does not disclose "the storage block

mappings for the target object" and "the change is stored in the format of MTF".

Fletcher, however, discloses a data backup and restores system for computer network

including the claimed feature (see col. 6, lines 10-19 and col. 8, lines 18-36, Fletcher). It would

have been obvious to one of ordinary skill in the art at the time of the invention to modify the

teaching of Pongracz/Zaremba and Stevens. The motivation of doing so would have been to

enhance the full backup and recovery system, for example, the capability of interchanging data

between different operating system (see col. 2, lines 14-19, Fletcher).

3.   Claims 22-30, 32 and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Zaremba (U. S. Patent no. 6,647,399) in view of Stevens (U. S. Patent no. 6,145,088).

Regarding claims 22 and 32, Zaremba discloses a computer system (Fig. 1) comprising:

-       a plurality of servers having at least one connection to a communications

        network (see col. 3, line 46 to col. 4, line 7, Zaremba); and

-       a plurality of storage components for the storage of backup information for a

        plurality of target objects in the form of full, incremental and cumulative backup

        information (see col. 1, lines 45-49 and col. 2, lines 26-61, Zaremba);

Zaremba does not disclose that the backup information wherein the backup can be

performed off-line. Stevens discloses an apparatus for remote recovery including the backup file

that can be performed off-line (see Fig. 2 and col. 1, lines 49-56, Stevens). It would have been

obvious to one of ordinary skill in the art at the time of the invention to modify Zaremba to

include the claim feature. The motivation of doing so would have been to provide relief to data

loss (col. 1, lines 49-56, Stevens).

Regarding claim 23, Zaremba/Stevens combination discloses reconstructing of the target

objects to the second time (see col. 2, lines 32-49, Zaremba).

Regarding claim 24, Zaremba/Stevens combination does not disclose the reconstructing

of the plurality of target objects to a third time. However, since the combination system can

reconstruct the target objects the second time (see col. 2, lines 32-49, Zaremba). It is clearly

operate to reconstruct the third time as well as many times thereafter.

Regarding claim 25, Zaremba/Stevens combination discloses that the plurality of storage

components store backup information for the plurality of target objects (see col. 2, lines 31-33,

Zaremba).

Regarding claim 26, Zaremba/Stevens combination discloses that the plurality of storage

components store backup information for a volume (see col. 5, lines 4-9, Zaremba).

Regarding claim 27, Zaremba/Stevens combination discloses that the plurality of storage

components store backup information for a directory (see col. 6, line 63 to col. 7, line 3,

Zaremba).

Regarding claim 28, Zaremba/Stevens combination discloses that at least one of the

plurality of servers generates the backup information in response to monitoring and analyzing an

inefficiency of a system restore operation (see col. 6, lines 4-10, Zaremba).

Regarding claim 29, Zaremba/Stevens combination discloses a condition of bounded

restore time for the plurality of target objects (see 1, lines 15-32, Zaremba).

Regarding claim 30, Zaremba/Stevens combination discloses the generation of a cumulative backup file includes the analysis of at least one incremental file (see col. 1, lines 45-49 and col. 2, lines 26-61, Zaremba)

Regarding claim 34, Zaremba/Stevens combination disclose that the storage of backup information wherein the backup can be performed off-line (see Fig. 2 and col. 1, lines 49-56, Stevens).

4.   Claims 31 and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zaremba (U. S. Patent no. 6,647,399) in view of Stevens (U. S. Patent no. 6,145,088) and further view of Pongracz et al. (U. S. Patent no. 6,073,128).

Regarding claims 31 and 33, Zaremba/Stevens combination discloses all of the claimed limitations as discussed above, except the analysis of the at least one incremental file is performed in reverse chronological order.

Pongracz discloses a method for identifying files used to restore a file and is performed in reverse chronological order (see col.3, lines 45-49, Pongracz). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Zaremba/Stevens to include the claim feature as taught by Pongracz. The motivation of doing so would have been to provide a properly backup file system (see col.3, lines 36-39, Pongracz).

Conclusion

5.   The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Amundson et al. (US patent no. 6,154,852) disclose a method and apparatus for data backup and recovery.

6.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hanh B Thai whose telephone number is 571-272-4029. The examiner can normally be reached on 8 AM - 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Safet Metjahic can be reached on 703-308-1436. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Hanh Thai ⱠⱢ
Art Unit 2161
October 5, 2004

UYEN LE
PRIMARY EXAMINER